

IN THE CLAIMS:

Please substitute the following listing of claims for the previous listing of claims.

1. (Previously presented) A method of recovering hydrocarbons from a subterranean reservoir, the method comprising:
 - (a) drilling an injection well bore into the subterranean reservoir, the injection well bore having an outlet;
 - (b) drilling a production well bore into the subterranean reservoir, the production well bore being spaced apart from the injection well bore and having an inlet;
 - (c) forming a permeable zone comprising a first patterned web of channels radiating outwardly from the outlet of the injection well bore and connecting to a second patterned web of channels radiating outwardly from the inlet of the production well bore in the subterranean reservoir; and
 - (d) flowing a heated fluid from the outlet of the injection well bore and into the permeable zone to mobilize hydrocarbons in the subterranean reservoir so that the mobilized hydrocarbons flow toward the inlet of the production well bore.
2. (Original) A method according to claim 1 wherein (c) comprises forming a permeable zone having a predetermined shape that induces gravity drainage of the mobilized hydrocarbon towards the inlet of the production well bore.
3. (Original) A method according to claim 1 wherein (c) comprises forming the permeable zone about a plane that is angled downwardly from the injection well bore to the production well bore.
4. (Original) A method according to claim 3 wherein (c) comprises forming a permeable zone that is angled downwardly with an angle of from about 5 degrees to about 20 degrees.

5. (Original) A method according to claim 1 wherein (c) comprises forming a permeable zone having first and second patterned webs of channels that fan out from the injection and production well bores towards an interior region of the reservoir between the injection and production well bore, and wherein the first and second patterned web of channels are connected at the interior region.

6. (Original) A method according to claim 1 wherein (c) comprises forming a permeable zone that fans out from at least one of the injection and production well bores at a horizontal angle of from about 30 degrees to about 60 degrees.

7. (Original) A method according to claim 1 wherein (c) comprises forming a permeable zone having a convoluted path between the injection well bore and production well bore.

8. (Original) A method according to claim 1 comprising forming a plurality of injection well bores and production well bores that are disposed about the intersection points of a grid pattern.

9. (Original) A method according to claim 1 comprising forming two injection well bores and two production well bores that are disposed at the vertices of a square, the injection well bores lying on a first diagonal and the production well bores lying on a second diagonal of the square, and further comprising forming permeable zones that pass through an interior region of the square to connect outlets and inlets of the injection and production well bores.

10. (Currently amended) A method according to claim 1 wherein (d) comprises flowing a heated fluid comprising one or more of an oxygen-containing gas, steam, oxygen, air, or hydrocarbons, into the permeable zone.

11. (Previously presented) A method of recovering hydrocarbons from a subterranean reservoir, the method comprising:

(a) drilling injection and production well bores into the subterranean reservoir so that alternating injection and production well bores are disposed at intersection points of a grid pattern, the grid pattern comprising squares with diagonally facing injection wells bores and diagonally facing production wells bores, wherein the injection well bores comprise outlets and the production well bores comprise inlets;

(b) forming a plurality of permeable zones, the permeable zones comprising a first patterned web of channels that radiate outwardly from facing pairs of outlets of the injection well bores in the subterranean reservoir and a second patterned web of channels that radiate outwardly from facing pairs of inlets of the production well bores; and

(c) flowing a heated fluid from the outlets into the permeable zones to fluidize hydrocarbons in the subterranean reservoir so that the fluidized hydrocarbons flow toward the inlets of the production well bores.

12. (Original) A method according to claim 11 wherein in (b) the permeable zones are spaced apart from one another in the grid pattern by unexcavated reservoir regions.

13. (Original) A method according to claim 11 wherein in (b) the permeable zones comprise triangular sections that fan out with increasing width from each well bore.

14. (Original) A method according to claim 13 wherein in (b) each triangular section covers an angle of from about 30 to about 60 degrees.

15. (Original) A method according to claim 14 wherein diagonally opposing triangular sections abut together along a base of each triangle about a center of the square.

16. (Currently amended) A method according to claim 11 wherein (c) comprises flowing a heated fluid comprising one or more of an oxygen-containing gas, steam, oxygen, air, or hydrocarbons, into the permeable zone.

17. (Previously presented) A method of recovering hydrocarbons from a subterranean reservoir, the method comprising:

(a) drilling an injection well bore and a production well bore into the subterranean reservoir, the injection well bore having an outlet spaced apart from an inlet of the production well bore;

(b) forming a permeable zone comprising (i) a first patterned web of channels radiating outwardly from the outlet of the injection well bore, the channels extending downwardly into the subterranean reservoir at an angle of at least about 5 degrees, and (ii) a second patterned web of channels radiating outwardly from the inlet of the production well bore and located below, or connected to, the first patterned web of channels; and

(c) flowing a heated fluid into the permeable zone to mobilize hydrocarbons in the subterranean reservoir so that the mobilized hydrocarbons flow toward the inlet of the production well bore.

18. (Previously presented) A method according to claim 17 wherein (b) comprises forming a permeable zone that fans out from the injection well bore at a horizontal angle of from about 30 degrees to about 60 degrees.

19. (Previously presented) A well pattern to recover hydrocarbons from a subterranean reservoir, the well pattern comprising:

an injection well bore extending into the subterranean reservoir, the injection well bore comprising an outlet;

an injection fluid supply to supply a heated fluid to the subterranean reservoir via the outlet;

a production well extending into the subterranean reservoir, the production well being spaced apart from the injection well bore and having an inlet; and

a permeable zone in the subterranean reservoir comprising a first patterned web of channels radiating outwardly from the outlet of the injection well bore and below or connected to a second patterned web of channels radiating outwardly from the inlet of the production well in the reservoir, whereby the heated fluid flows from the outlet into the permeable zone to mobilize hydrocarbons in the subterranean reservoir so that the mobilized hydrocarbons flow toward the inlet of the production well.

20. (Previously presented) A well pattern according to claim 19 wherein the permeable zone is angled downwardly from the injection well bore to the production well at an angle of from about 5 degrees to about 20 degrees.

21. (Previously presented) A well pattern according to claim 19 wherein the permeable zone fans out from at least one of the injection well bore and production well at an angle of from about 30 degrees to about 60 degrees.

22. (Previously presented) A well pattern according to claim 19 wherein the permeable zone has a convoluted path between the injection well bore and production well.

23-25. (Cancelled)

APGT.1.US
Application No: 10/652,351
Page 7 of 9

26. (New) A method according to claim 17 wherein (c) comprises flowing a heated fluid comprising one or more of an oxygen-containing gas, steam, oxygen, air, or hydrocarbons, into the permeable zone.

27. (New) A method according to claim 19 wherein the injection fluid supply is capable of providing a heated fluid comprising one or more of an oxygen-containing gas, steam, oxygen, air, or hydrocarbons, into the permeable zone.